

## **DEPARTMENT OF TRANSPORTATION**

# **National Highway Traffic Safety Administration**

## **Petition for Exemption from the**

## Federal Vehicle Theft Prevention Standard;

## **Mazda Motor Corporation**

**AGENCY:** National Highway Traffic Safety Administration (NHTSA),

Department of Transportation (DOT)

**ACTION:** Grant of petition for exemption.

SUMMARY: This document grants in full the Mazda Motor Corporation's (Mazda) petition for an exemption of the (confidential) vehicle line in accordance with 49 CFR Part 543, Exemption from Vehicle Theft Prevention Standard. This petition is granted because the agency has determined that the antitheft device to be placed on the line as standard equipment is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of 49 CFR Part 541, Federal Motor Vehicle Theft Prevention Standard (Theft Prevention Standard). Mazda also requested confidential treatment for specific information in its petition. The agency will address Mazda's request for confidential treatment by separate letter. DATES: The exemption granted by this notice is effective beginning with the 2016 model year (MY).

**FOR FURTHER INFORMATION CONTACT:** Ms. Deborah Mazyck, Office of International Policy, Fuel Economy and Consumer Programs, NHTSA, W43-443, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. Ms. Mazyck's phone number is (202) 366-4139. Her fax number is (202) 493-2990.

**SUPPLEMENTAL INFORMATION:** In a petition dated August 1, 2014, Mazda requested an exemption from the parts-marking requirements of the Theft Prevention Standard for the Mazda (confidential) vehicle line beginning with MY 2016. The petition requested an exemption from parts-marking pursuant to 49 CFR Part 543, Exemption from Vehicle Theft Prevention Standard, based on the installation of an antitheft device as standard equipment for the entire vehicle line.

Under 49 CFR Part 543.5(a), a manufacturer may petition NHTSA to grant an exemption for one vehicle line per model year. In its petition, Mazda provided a detailed description and diagram of the identity, design, and location of the components of the antitheft device for the (confidential) vehicle line. Mazda stated that its MY 2016 (confidential) vehicle line will be equipped with a passive, transponder based, electronic engine immobilizer antitheft device as standard equipment. Key components of its antitheft device will include a powertrain control module (PCM), immobilizer control module, security indicator light, coil antenna, transmitter with transponder key (transponder key), low frequency (LF) antenna, radio frequency (RF) antenna and low frequency unit (LFU). The device will not provide any visible or audible indication of unauthorized vehicle entry (i.e., flashing lights or horn alarm) as standard equipment. Mazda's submission is considered a complete petition as required by 49 CFR 543.7, in that it meets the general requirements contained in §543.5 and the specific content requirements of §543.6.

The integration of the set/unset device (transponder key) into the immobilizer system prevents any inadvertent actuation of the system. Mazda stated that the antitheft device is deactivated when the ignition is initially engaged by pressing the "Engine Start" pushbutton while simultaneously depressing the brake pedal. Activation of the device occurs when the

operator disengages the ignition by pressing the "Engine Start" pushbutton when the vehicle is parked.

Mazda further stated that there are two methods of initiating the antitheft device operation process. The first process is used when the transponder key can be detected. Specifically, the immobilizer control unit sends a signal to the transponder key using its LF antenna to request a transponder code. The transponder code is then sent through the RF receiver back to the immobilizer control unit to authenticate the code and determine its validity. The second process is used when the transponder key cannot be detected by the immobilizer control unit (i.e., discharged battery). For this process, communication between the transponder key and the immobilizer control unit begins when the transponder key is passed over the coil antenna located in the "Engine Start" pushbutton. The immobilizer control module then communicates with the transponder key to determine key validity. Mazda stated that if the code from the transponder key matches with the code from the immobilizer control module by either process, the immobilizer control module compares its code with the code from the PCM when the "Engine Start" pushbutton is pressed and the brake pedal is depressed simultaneously. Mazda stated that the vehicle's engine can only be started if the code from the immobilizer control module matches the code previously programmed into the PCM. If the codes do not match, the engine will not start.

Mazda also stated that the immobilizer device incorporates a light-emitting diode (LED) indicator which provides information on the status of the antitheft device. Specifically, when the ignition is initially engaged, the LED illuminates continuously for 3 seconds to indicate the "unset" state of the system. When the ignition is disengaged, a flashing LED indicates the "set"

state of the device, providing a visual confirmation that the vehicle is protected by the immobilizer device.

In addressing the specific content requirements of §543.6, Mazda provided information on the reliability and durability of its proposed device. To ensure reliability and durability of the device, Mazda conducted tests based on its own specified standards. Mazda provided a detailed list of the tests conducted (i.e., electromagnetic radiation, electric conduction, and climatic, mechanical and chemical environments) and believes that the device is reliable and durable since it complied with its own specified requirements for each test. Mazda also stated that its device is extremely reliable and durable because it does not have any moving parts, and that any attempt to slam-pull the ignition will have no effect on a thief's ability to start the vehicle without the correct code being transmitted to the electronic control modules.

In support of its belief that its antitheft device will be as effective as compliance with the parts-marking requirements in reducing and deterring vehicle theft, Mazda also compared its device to other similar devices previously granted exemptions by the agency. Mazda stated that its antitheft device has features similar to the Ford Motor Company's (Ford) Passive Anti-Theft System (PATS). The PATS antitheft device was previously approved for exemption from the requirements of Part 541 and installed on the Mazda Tribute, (manufactured by Ford), the Ford Focus, the Ford Five Hundred and the Ford Taurus X vehicle lines. The agency granted in full the petition for the Mazda Tribute vehicle line beginning with model year 2010, (see 73 FR 40447, July 14, 2008), the Ford Focus vehicle line beginning with model year 2006, (see 71 FR 7824, February 14, 2006, ), the Ford Five Hundred beginning with model year 2007 (see 71 FR 52206, September 1, 2006), and the Ford Taurus X vehicle line beginning with model year 2008,

(see 72 FR 20400, April 24, 2007). The agency notes the average theft rate for the Mazda Tribute and Ford Focus vehicle lines using three MYs' data (2010-preliminary 2012) are 1.560 and 0.14216 respectively. Current theft rate data is not available for the Ford Five Hundred and the Taurus X vehicle lines because they are no longer being produced.

Mazda also provided data on the effectiveness of other similar antitheft devices installed on vehicle lines in support of its belief that its device will be at least as effective as those comparable devices. Specifically, Mazda stated that its device was installed on certain MY 1996 Ford vehicles as standard equipment, (i.e., all Ford Mustang GT, Cobra, Taurus LX, SHO and Sable LS models). In MY 1997, Mazda installed its immobilizer device on the entire Ford Mustang vehicle line as standard equipment. When comparing 1995 model year Mustang vehicle thefts (without immobilizers) with MY 1997 Mustangs vehicle thefts (with immobilizers), Mazda referenced the National Crime Information Center's theft information which showed that there was a 70% reduction in theft experienced when comparing MY 1997 Mustang vehicle thefts (with immobilizers) to MY 1995 Mustang vehicle thefts (without immobilizers). Mazda also stated that the Highway Loss Data Institute's (HLDI) September 1997 Theft Loss Bulletin reported an overall theft loss decrease of approximately 50% for both the Ford Mustang and Taurus models upon installation of an antitheft immobilization device. The agency notes that current theft rate data for MYs 2010 through preliminary 2012 are 2.2392, 1.7365 and 2.2115 respectively for the Ford Mustang vehicle line. Additionally, Mazda referenced a July 2000 HLDI news release which reported that when comparing theft loss data before and after equipping vehicle with passive immobilizer devices, the data showed an average theft reduction of approximately 50% for vehicle with immobilizer devices.

Mazda stated that it believes that since its device is functionally equivalent to other comparable manufacturer's devices that have already been granted parts-marking exemptions by the agency, along with the evidence of reduced theft rates for vehicle lines equipped with similar devices and advanced technology of transponder electronic security, the Mazda immobilizer device will have the potential to achieve the level of effectiveness equivalent to those vehicle already exempted by the agency. The agency agrees that the device is substantially similar to devices installed on other vehicle lines for which the agency has already granted exemptions.

Based on the supporting evidence submitted by Mazda on its device, the agency believes that the antitheft device for the (confidential) vehicle line is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the Theft Prevention Standard (49 CFR 541).

Pursuant to 49 U.S.C. 33106 and 49 CFR 543.7 (b), the agency grants a petition for exemption from the parts-marking requirements of Part 541 either in whole or in part, if it determines that, based upon substantial evidence, the standard equipment antitheft device is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of Part 541. The agency finds that Mazda has provided adequate reasons for its belief that the antitheft device for the Mazda (confidential) vehicle line is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the Theft Prevention Standard (49 CFR Part 541). This conclusion is based on the information Mazda provided about its device.

The agency concludes that the device will provide the four of the five types of

performance listed in §543.6(a)(3): promoting activation; preventing defeat or circumvention of the device by unauthorized persons; preventing operation of the vehicle by unauthorized entrants; and ensuring the reliability and durability of the device.

For the foregoing reasons, the agency hereby grants in full Mazda's petition for exemption for the Mazda (confidential) vehicle line from the parts-marking requirements of 49 CFR Part 541. The agency notes that 49 CFR Part 541, Appendix A-1, identifies those lines that are exempted from the Theft Prevention Standard for a given model year. 49 CFR Part 543.7(f) contains publication requirements incident to the disposition of all Part 543 petitions. Advanced listing, including the release of future product nameplates, the beginning model year for which the petition is granted and a general description of the antitheft device is necessary in order to notify law enforcement agencies of new vehicle lines exempted from the parts-marking requirements of the Theft Prevention Standard.

If Mazda decides not to use the exemption for this line, it must formally notify the agency. If such a decision is made, the line must be fully marked according to the requirements under 49 CFR Parts 541.5 and 541.6 (marking of major component parts and replacement parts).

NHTSA notes that if Mazda wishes in the future to modify the device on which this exemption is based, the company may have to submit a petition to modify the exemption. Part 543.7(d) states that a Part 543 exemption applies only to vehicles that belong to a line exempted under this part and equipped with the antitheft device on which the line's exemption is based. Further, Part 543.9(c)(2) provides for the submission of petitions "to modify an exemption to permit the use of an antitheft device similar to but differing from the one specified in that exemption."

The agency wishes to minimize the administrative burden that Part 543.9(c)(2) could place on exempted vehicle manufacturers and itself. The agency did not intend in drafting Part 543 to require the submission of a modification petition for every change to the components or design of an antitheft device. The significance of many such changes could be *de minimis*. Therefore, NHTSA suggests that if the manufacturer contemplates making any changes, the effects of which might be characterized as *de minimis*, it should consult the agency before preparing and submitting a petition to modify.

Under authority delegated in 49 CFR Part 1.95

R. Ryan Posten, Associate Administrator for Rulemaking.

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